WE CLAIM

1. A method for diagnosing a cancer in a mammal, comprising:

    a) determining SPHK1 gene copy number in a test sample from a region of the mammal that is suspected to be precancerous or cancerous, thereby generating data for a test gene copy number; and

    b) comparing the test gene copy number to data for a control gene copy number, wherein an amplification of the gene in the test sample relative to the control indicates the presence of a precancerous lesion or a cancer in the mammal.

2. The method according to claim 1, wherein the control gene copy number is two copies per cell.

3. The method according to claim 1, wherein the cancer is a colon cancer, an ovarian cancer, a lung cancer, a breast cancer, a brain cancer, or a bladder cancer.

4. A method for inhibiting cancer or precancerous growth in a mammalian tissue, comprising contacting the tissue with an inhibitor that interacts with SPHK1 DNA or RNA and thereby inhibits SPHK1 gene function.

5. The method according to claim 4, wherein the tissue is a colon tissue, an ovarian tissue, a breast tissue, a lung tissue, a brain tissue, or a bladder tissue.

6. The method according to claim 4, wherein the inhibitor is a siRNA, miRNA, an antisense RNA, an antisense DNA, a decoy molecule, or a decoy DNA.

7. The method according to claim 4, wherein the inhibitor contains nucleotides, and wherein the inhibitor comprises less than about 100 bps in length.

8. The method according to claim 4, wherein the inhibitor is a ribozyme.

9. The method according to claim 4, wherein the inhibitor is a small molecule.

10. A method for inhibiting cancer or precancerous growth in a mammalian tissue, comprising contacting the tissue with an inhibitor of SPHK1 protein.

11. The method according to claim 10, wherein the tissue is a colon tissue, an ovarian tissue, a breast tissue, a lung tissue, a brain tissue, or a bladder tissue.

12. A method for diagnosing a cancer in a mammal, comprising:

    a) determining the level of SPHK1 in a test sample from a region of the mammal that is suspected to be precancerous or cancerous, thereby generating data for a test level; and

    b) comparing the test level to data for a control level, wherein an elevated test level of the test sample relative to the control level indicates the presence of a precancerous lesion or a cancer in the mammal.

13. The method according to claim 12, wherein the control level is obtained from a database of SPHK1 levels detected in a control sample.

14. A method of administering siRNA to a patient in need thereof, wherein the siRNA molecule is delivered in the form of a naked oligonucleotide or a vector, wherein the siRNA interacts with SPHK1 gene or SPHK1 mRNA transcript.

15. The method of claim 14, wherein the siRNA is delivered as a vector, wherein the vector is a plasmid, cosmid, bacteriophage, or a virus.

16. The method of claim 14, wherein the vector is a retrovirus or an adenovirus based vector.

17. A method of blocking *in vivo* expression of a gene by administering a vector encoding SPHK1 siRNA.

18. The method of claim 17, wherein the siRNA interferes with SPHK1 activity.

19. The method of claim 17, wherein the siRNA causes post-transcriptional silencing of SPHK1 gene in a mammalian cell.

20. The method of claim 19, wherein the cell is a human cell.

21. A method of screening a test molecule for SPHK1 antagonist activity comprising the steps of:

    a) contacting the molecule with a cancer cell;

    b) determining the level of SPHK1 in the cell, thereby generating data for a test level; and

    c) comparing the test level to the SPHK1 level of the cancer cell prior to contacting the test molecule, wherein a decrease in SPHK1 in the test level indicates SPHK1 antagonist activity of the test molecule.

22. The method of claim 21, wherein the level of SPHK1 is determined by reverse transcription and polymerase chain reaction (RT-PCR).

23. The method of claim 21, wherein the level of SPHK1 is determined by Northern hybridization or microarray analysis.

24. The method of claim 21, wherein the cell is obtained from a colon tissue, an ovarian tissue, a breast tissue, a lung tissue, a brain tissue, or a bladder tissue.

25. A method of screening a test molecule for SPHK1 antagonist activity comprising the steps of:

    a) contacting the molecule with SPHK1; and

    b) determining the effect of the test molecule on SPHK1.

26. The method according to claim 25, wherein the effect is determined via a binding assay.

27. A method of determining whether a test molecule has SPHK1 antagonist activity, wherein the method comprises:

    a) determining the level of SPHK1 in a test sample containing cancer cells, thereby generating data for a control level;

    b) contacting the molecule with the test sample to generate data for a test level; and

c) comparing the control level to the test level, wherein no decrease in SPHK1 in the test level as compared to the control level indicates that the test molecule has no SPHK1 antagonist activity.

28. A method for selecting test molecules having SPHK1 antagonist activity, wherein the method comprises:

a) determining the level of SPHK1 in a test sample containing cancer cells, thereby generating data for a control level;

b) contacting the molecule with the test sample to generate data for a test level;

c) comparing the control level to test level, wherein no decrease in SPHK1 in the test level as compared to the control level indicates that the test molecule has no SPHK1 antagonist activity; and

d) eliminating the test molecule from further evaluation or study.

29. A method for determining the efficacy of a therapeutic treatment regimen in a patient, comprising:

a) measuring the SPHK1 gene copy number in a first sample obtained from a patient, thereby generating an initial level;

b) administering the treatment regimen to the patient;

c) measuring the SPHK1 gene copy number in a second sample from the patient at a time following administration of the treatment regimen, thereby generating a test level; and

d) comparing the initial and test levels, wherein a decrease in the gene copy number level in the test level relative to the initial level indicates that the treatment regimen is effective in the patient.

30. The method according to claim 29, wherein the sample is obtained from a colon tissue, an ovarian tissue, a breast tissue, a lung tissue, a brain tissue, or a bladder tissue.

31. A method for determining the efficacy of a therapeutic treatment regimen in a patient, comprising:

    a) measuring at least one of SPHK1 mRNA or SPHK1 expression levels in a first sample obtained from the patient, thereby generating data for a pre-treatment level;

    b) administering the treatment regimen to the patient;

    c) measuring at least one of SPHK1 mRNA or SPHK1 expression levels in a second sample from the patient at a time following administration of the treatment regimen, thereby generating data for a test level; and

    d) comparing the pre-treatment level to the test level, wherein data showing no decrease in the test level relative to the pre-treatment level indicates that the treatment regimen is not effective in the patient.

32. A method for selecting test molecules having a therapeutic effect in a patient, comprising:

    a) measuring at least one of SPHK1 mRNA or SPHK1 expression levels in a first sample obtained from the patient, thereby generating data for a pre-treatment level;

    b) administering the test molecule to the patient;

    c) measuring at least one of SPHK1 mRNA or SPHK1 expression levels in a second sample from the patient at a time following administration of the test molecule, thereby generating data for a test level;

    d) comparing the pre-treatment level to the test level, wherein data showing no decrease in the test level relative to the pre-treatment level indicates that the test molecule is not effective in the patient; and

    e) eliminating the test molecule from further evaluation or study.

33. A method for diagnosing a cancer in a mammal, comprising:

a) determining EDG4 gene copy number in a test sample from a region of the mammal that is suspected to be precancerous or cancerous, thereby generating data for a test gene copy number; and

b) comparing the test gene copy number to data for a control gene copy number, wherein an amplification of the gene in the test sample relative to the control indicates the presence of a precancerous lesion or a cancer in the mammal.

34. The method according to claim 33, wherein the control gene copy number is two copies per cell.

35. The method according to claim 33, wherein the cancer is a breast cancer, a colon cancer, a lung cancer, an ovarian cancer, a liver cancer, a kidney cancer, a head and neck cancer, a stomach cancer, or an esophagus cancer.

36. A method for inhibiting cancer or precancerous growth in a mammalian tissue, comprising contacting the tissue with an inhibitor that interacts with EDG4 DNA or RNA and thereby inhibits EDG4 gene function.

37. The method according to claim 36, wherein the tissue is a breast tissue, a colon tissue, a lung tissue, an ovarian tissue, a liver tissue, a kidney tissue, a head and neck tissue, a stomach tissue, or an esophagus tissue.

38. The method according to claim 36, wherein the inhibitor is a siRNA, miRNA, an antisense RNA, an antisense DNA, a decoy molecule, or a decoy DNA.

39. The method according to claim 36, wherein the inhibitor contains nucleotides, and wherein the inhibitor comprises less than about 100 bps in length.

40. The method according to claim36, wherein the inhibitor is a ribozyme.

41. The method according to claim 36, wherein the inhibitor is a small molecule.

42. A method for inhibiting cancer or precancerous growth in a mammalian tissue, comprising contacting the tissue with an inhibitor of EDG4 protein.

43. The method according to claim 42, wherein the tissue is a breast tissue, a colon tissue, a lung tissue, an ovarian tissue, a liver tissue, a kidney tissue, a head and neck tissue, a stomach tissue, or an esophagus tissue.

44. A method for diagnosing a cancer in a mammal, comprising:

    a) determining the level of EDG4 in a test sample from a region of the mammal that is suspected to be precancerous or cancerous, thereby generating data for a test level; and

    b) comparing the test level to data for a control level, wherein an elevated test level of the test sample relative to the control level indicates the presence of a precancerous lesion or a cancer in the mammal.

45. The method according to claim 44, wherein the control level is obtained from a database of EDG4 levels detected in a control sample.

46. A method of administering siRNA to a patient in need thereof, wherein the siRNA molecule is delivered in the form of a naked oligonucleotide or a vector, wherein the siRNA interacts with EDG4 gene or EDG4 mRNA transcript.

47. The method of claim 46, wherein the siRNA is delivered as a vector, wherein the vector is a plasmid, cosmid, bacteriophage, or a virus.

48. The method of claim 46, wherein the vector is a retrovirus or an adenovirus based vector.

49. A method of blocking *in vivo* expression of a gene by administering a vector encoding EDG4 siRNA.

50. The method of claim 49, wherein the siRNA interferes with EDG4 activity.

51. The method of claim 49, wherein the siRNA causes post-transcriptional silencing of EDG4 gene in a mammalian cell.

52. The method of claim 51, wherein the cell is a human cell.

53. A method of screening a test molecule for EDG4 antagonist activity comprising the steps of:

    a) contacting the molecule with a cancer cell;

    b) determining the level of EDG4 in the cell, thereby generating data for a test level; and

    c) comparing the test level to the EDG4 level of the cancer cell prior to contacting the test molecule, wherein a decrease in EDG4 in the test level indicates EDG4 antagonist activity of the test molecule.

54. The method of claim 53, wherein the level of EDG4 is determined by reverse transcription and polymerase chain reaction (RT-PCR).

55. The method of claim 53, wherein the level of EDG4 is determined by Northern hybridization or microarray analysis.

56. The method of claim 53, wherein the cell is obtained from a breast tissue, a colon tissue, a lung tissue, an ovarian tissue, a liver tissue, a kidney tissue, a head and neck tissue, a stomach tissue, or an esophagus tissue.

57. A method of screening a test molecule for EDG4 antagonist activity comprising the steps of:

    a) contacting the molecule with EDG4; and

    b) determining the effect of the test molecule on EDG4.

58. The method according to claim 57, wherein the effect is determined via a binding assay.

59. A method of determining whether a test molecule has EDG4 antagonist activity, wherein the method comprises:

    a) determining the level of EDG4 in a test sample containing cancer cells, thereby generating data for a control level;

    b) contacting the molecule with the test sample to generate data for a test level; and

c) comparing the control level to the test level, wherein no decrease in EDG4 in the test level as compared to the control level indicates that the test molecule has no EDG4 antagonist activity.

60. A method for selecting test molecules having EDG4 antagonist activity, wherein the method comprises:

a) determining the level of EDG4 in a test sample containing cancer cells, thereby generating data for a control level;

b) contacting the molecule with the test sample to generate data for a test level;

c) comparing the control level to test level, wherein no decrease in EDG4 in the test level as compared to the control level indicates that the test molecule has no EDG4 antagonist activity; and

d) eliminating the test molecule from further evaluation or study.

61. A method for determining the efficacy of a therapeutic treatment regimen in a patient, comprising:

a) measuring the EDG4 gene copy number in a first sample obtained from a patient, thereby generating an initial level;

b) administering the treatment regimen to the patient;

c) measuring the EDG4 gene copy number in a second sample from the patient at a time following administration of the treatment regimen, thereby generating a test level; and

d) comparing the initial and test levels, wherein a decrease in the gene copy number level in the test level relative to the initial level indicates that the treatment regimen is effective in the patient.

62. The method according to claim 61, wherein the sample is obtained from a breast tissue, a colon tissue, a lung tissue, an ovarian tissue, a liver tissue, a kidney tissue, a head and neck tissue, a stomach tissue, or an esophagus tissue.

63. A method for determining the efficacy of a therapeutic treatment regimen in a patient, comprising:

    a) measuring at least one of EDG4 mRNA or EDG4 expression levels in a first sample obtained from the patient, thereby generating data for a pre-treatment level;

    b) administering the treatment regimen to the patient;

    c) measuring at least one of EDG4 mRNA or EDG4 expression levels in a second sample from the patient at a time following administration of the treatment regimen, thereby generating data for a test level; and

    d) comparing the pre-treatment level to the test level, wherein data showing no decrease in the test level relative to the pre-treatment level indicates that the treatment regimen is not effective in the patient.

64. A method for selecting test molecules having a therapeutic effect in a patient, comprising:

    a) measuring at least one of EDG4 mRNA or EDG4 expression levels in a first sample obtained from the patient, thereby generating data for a pre-treatment level;

    b) administering the test molecule to the patient;

    c) measuring at least one of EDG4 mRNA or EDG4 expression levels in a second sample from the patient at a time following administration of the test molecule, thereby generating data for a test level;

    d) comparing the pre-treatment level to the test level, wherein data showing no decrease in the test level relative to the pre-treatment level indicates that the test molecule is not effective in the patient; and

    e) eliminating the test molecule from further evaluation or study.

65. A method for diagnosing a cancer in a mammal, comprising:

a) determining EDG5 gene copy number in a test sample from a region of the mammal that is suspected to be precancerous or cancerous, thereby generating data for a test gene copy number; and

b) comparing the test gene copy number to data for a control gene copy number, wherein an amplification of the gene in the test sample relative to the control indicates the presence of a precancerous lesion or a cancer in the mammal.

66. The method according to claim 65, wherein the control gene copy number is two copies per cell.

67. The method according to claim 65, wherein the cancer is a colon cancer, a lung cancer, a breast cancer, a liver cancer, or a bladder cancer.

68. A method for inhibiting cancer or precancerous growth in a mammalian tissue, comprising contacting the tissue with an inhibitor that interacts with EDG5 DNA or RNA and thereby inhibits EDG5 gene function.

69. The method according to claim 68, wherein the tissue is a colon tissue, a breast tissue, a lung tissue, a liver tissue, or a bladder tissue.

70. The method according to claim 68, wherein the inhibitor is a siRNA, miRNA, an antisense RNA, an antisense DNA, a decoy molecule, or a decoy DNA.

71. The method according to claim 68, wherein the inhibitor contains nucleotides, and wherein the inhibitor comprises less than about 100 bps in length.

72. The method according to claim 68, wherein the inhibitor is a ribozyme.

73. The method according to claim 68, wherein the inhibitor is a small molecule.

74. A method for inhibiting cancer or precancerous growth in a mammalian tissue, comprising contacting the tissue with an inhibitor of EDG5 protein.

75. The method according to claim 74, wherein the tissue is a colon tissue, a breast tissue, a lung tissue, a liver tissue, or a bladder tissue.

76. A method for diagnosing a cancer in a mammal, comprising:

    a) determining the level of EDG5 in a test sample from a region of the mammal that is suspected to be precancerous or cancerous, thereby generating data for a test level; and

    b) comparing the test level to data for a control level, wherein an elevated test level of the test sample relative to the control level indicates the presence of a precancerous lesion or a cancer in the mammal.

77. The method according to claim 76, wherein the control level is obtained from a database of EDG5 levels detected in a control sample.

78. A method of administering siRNA to a patient in need thereof, wherein the siRNA molecule is delivered in the form of a naked oligonucleotide or a vector, wherein the siRNA interacts with EDG5 gene or EDG5 mRNA transcript.

79. The method of claim 78, wherein the siRNA is delivered as a vector, wherein the vector is a plasmid, cosmid, bacteriophage, or a virus.

80. The method of claim 78, wherein the vector is a retrovirus or an adenovirus based vector.

81. A method of blocking *in vivo* expression of a gene by administering a vector encoding EDG5 siRNA.

82. The method of claim 81, wherein the siRNA interferes with EDG5 activity.

83. The method of claim 81, wherein the siRNA causes post-transcriptional silencing of EDG5 gene in a mammalian cell.

84. The method of claim 83, wherein the cell is a human cell.

85. A method of screening a test molecule for EDG5 antagonist activity comprising the steps of:

    a) contacting the molecule with a cancer cell;

b) determining the level of EDG5 in the cell, thereby generating data for a test level; and

c) comparing the test level to the EDG5 level of the cancer cell prior to contacting the test molecule, wherein a decrease in EDG5 in the test level indicates EDG5 antagonist activity of the test molecule.

86. The method of claim 85, wherein the level of EDG5 is determined by reverse transcription and polymerase chain reaction (RT-PCR).

87. The method of claim 85, wherein the level of EDG5 is determined by Northern hybridization or microarray analysis.

88. The method of claim 85, wherein the cell is obtained from a colon tissue, a breast tissue, a lung tissue, a liver tissue, or a bladder tissue.

89. A method of screening a test molecule for EDG5 antagonist activity comprising the steps of:

a) contacting the molecule with EDG5; and

b) determining the effect of the test molecule on EDG5.

90. The method according to claim 89, wherein the effect is determined via a binding assay.

91. A method of determining whether a test molecule has EDG5 antagonist activity, wherein the method comprises:

a) determining the level of EDG5 in a test sample containing cancer cells, thereby generating data for a control level;

b) contacting the molecule with the test sample to generate data for a test level; and

c) comparing the control level to the test level, wherein no decrease in EDG5 in the test level as compared to the control level indicates that the test molecule has no EDG5 antagonist activity.

92. A method for selecting test molecules having EDG5 antagonist activity, wherein the method comprises:

    a) determining the level of EDG5 in a test sample containing cancer cells, thereby generating data for a control level;

    b) contacting the molecule with the test sample to generate data for a test level;

    c) comparing the control level to test level, wherein no decrease in EDG5 in the test level as compared to the control level indicates that the test molecule has no EDG5 antagonist activity; and

    d) eliminating the test molecule from further evaluation or study.

93. A method for determining the efficacy of a therapeutic treatment regimen in a patient, comprising:

    a) measuring the EDG5 gene copy number in a first sample obtained from a patient, thereby generating an initial level;

    b) administering the treatment regimen to the patient;

    c) measuring the EDG5 gene copy number in a second sample from the patient at a time following administration of the treatment regimen, thereby generating a test level; and

    d) comparing the initial and test levels, wherein a decrease in the gene copy number level in the test level relative to the initial level indicates that the treatment regimen is effective in the patient.

94. The method according to claim 93, wherein the sample is obtained from a colon tissue, a breast tissue, a lung tissue, a liver tissue, or a bladder tissue.

95. A method for determining the efficacy of a therapeutic treatment regimen in a patient, comprising:

a) measuring at least one of EDG5 mRNA or EDG5 expression levels in a first sample obtained from the patient, thereby generating data for a pre-treatment level;

b) administering the treatment regimen to the patient;

c) measuring at least one of EDG5 mRNA or EDG5 expression levels in a second sample from the patient at a time following administration of the treatment regimen, thereby generating data for a test level; and

d) comparing the pre-treatment level to the test level, wherein data showing no decrease in the test level relative to the pre-treatment level indicates that the treatment regimen is not effective in the patient.

96. A method for selecting test molecules having a therapeutic effect in a patient, comprising:

a) measuring at least one of EDG5 mRNA or EDG5 expression levels in a first sample obtained from the patient, thereby generating data for a pre-treatment level;

b) administering the test molecule to the patient;

c) measuring at least one of EDG5 mRNA or EDG5 expression levels in a second sample from the patient at a time following administration of the test molecule, thereby generating data for a test level;

d) comparing the pre-treatment level to the test level, wherein data showing no decrease in the test level relative to the pre-treatment level indicates that the test molecule is not effective in the patient; and

e) eliminating the test molecule from further evaluation or study.

97. A method for diagnosing a cancer in a mammal, comprising:

a) determining EDG8 gene copy number in a test sample from a region of the mammal that is suspected to be precancerous or cancerous, thereby generating data for a test gene copy number; and

b) comparing the test gene copy number to data for a control gene copy number, wherein an amplification of the gene in the test sample relative to the control indicates the presence of a precancerous lesion or a cancer in the mammal.

98. The method according to claim 97, wherein the control gene copy number is two copies per cell.

99. The method according to claim 97, wherein the cancer is a colon cancer, a breast cancer, a lung cancer, a liver cancer, or a bladder cancer.

100. A method for inhibiting cancer or precancerous growth in a mammalian tissue, comprising contacting the tissue with an inhibitor that interacts with EDG8 DNA or RNA and thereby inhibits EDG8 gene function.

101. The method according to claim 100, wherein the tissue is a colon tissue, a breast tissue, a lung tissue, a liver tissue, or a bladder tissue.

102. The method according to claim 100, wherein the inhibitor is a siRNA, miRNA, an antisense RNA, an antisense DNA, a decoy molecule, or a decoy DNA.

103. The method according to claim 100, wherein the inhibitor contains nucleotides, and wherein the inhibitor comprises less than about 100 bps in length.

104. The method according to claim 100, wherein the inhibitor is a ribozyme.

105. The method according to claim 100, wherein the inhibitor is a small molecule.

106. A method for inhibiting cancer or precancerous growth in a mammalian tissue, comprising contacting the tissue with an inhibitor of EDG8 protein.

107. The method according to claim 106, wherein the tissue is a colon tissue, a breast tissue, a lung tissue, a liver tissue, or a bladder tissue.

108. A method for diagnosing a cancer in a mammal, comprising:

a) determining the level of EDG8 in a test sample from a region of the mammal that is suspected to be precancerous or cancerous, thereby generating data for a test level; and

b) comparing the test level to data for a control level, wherein an elevated test level of the test sample relative to the control level indicates the presence of a precancerous lesion or a cancer in the mammal.

109. The method according to claim 108, wherein the control level is obtained from a database of EDG8 levels detected in a control sample.

110. A method of administering siRNA to a patient in need thereof, wherein the siRNA molecule is delivered in the form of a naked oligonucleotide or a vector, wherein the siRNA interacts with EDG8 gene or EDG8 mRNA transcript.

111. The method of claim 110, wherein the siRNA is delivered as a vector, wherein the vector is a plasmid, cosmid, bacteriophage, or a virus.

112. The method of claim 110, wherein the vector is a retrovirus or an adenovirus based vector.

113. A method of blocking *in vivo* expression of a gene by administering a vector encoding EDG8 siRNA.

114. The method of claim 113, wherein the siRNA interferes with EDG8 activity.

115. The method of claim 113, wherein the siRNA causes post-transcriptional silencing of EDG8 gene in a mammalian cell.

116. The method of claim 115, wherein the cell is a human cell.

117. A method of screening a test molecule for EDG8 antagonist activity comprising the steps of:

a) contacting the molecule with a cancer cell;

b) determining the level of EDG8 in the cell, thereby generating data for a test level; and

c) comparing the test level to the EDG8 level of the cancer cell prior to contacting the test molecule, wherein a decrease in EDG8 in the test level indicates EDG8 antagonist activity of the test molecule.

118. The method of claim 117, wherein the level of EDG8 is determined by reverse transcription and polymerase chain reaction (RT-PCR).

119. The method of claim 117, wherein the level of EDG8 is determined by Northern hybridization or microarray analysis.

120. The method of claim 117, wherein the cell is obtained from a colon tissue, a breast tissue, a lung tissue, a liver tissue, or a bladder tissue.

121. A method of screening a test molecule for EDG8 antagonist activity comprising the steps of:

a) contacting the molecule with EDG8; and

b) determining the effect of the test molecule on EDG8.

122. The method according to claim 121, wherein the effect is determined via a binding assay.

123. A method of determining whether a test molecule has EDG8 antagonist activity, wherein the method comprises:

a) determining the level of EDG8 in a test sample containing cancer cells, thereby generating data for a control level;

b) contacting the molecule with the test sample to generate data for a test level; and

c) comparing the control level to the test level, wherein no decrease in EDG8 in the test level as compared to the control level indicates that the test molecule has no EDG8 antagonist activity.

124. A method for selecting test molecules having EDG8 antagonist activity, wherein the method comprises:

a) determining the level of EDG8 in a test sample containing cancer cells, thereby generating data for a control level;

b) contacting the molecule with the test sample to generate data for a test level;

c) comparing the control level to test level, wherein no decrease in EDG8 in the test level as compared to the control level indicates that the test molecule has no EDG8 antagonist activity; and

d) eliminating the test molecule from further evaluation or study.

125. A method for determining the efficacy of a therapeutic treatment regimen in a patient, comprising:

a) measuring the EDG8 gene copy number in a first sample obtained from a patient, thereby generating an initial level;

b) administering the treatment regimen to the patient;

c) measuring the EDG8 gene copy number in a second sample from the patient at a time following administration of the treatment regimen, thereby generating a test level; and

d) comparing the initial and test levels, wherein a decrease in the gene copy number level in the test level relative to the initial level indicates that the treatment regimen is effective in the patient.

126. The method according to claim 125, wherein the sample is obtained from a colon tissue, a breast tissue, a lung tissue, a liver tissue, or a bladder tissue.

127. A method for determining the efficacy of a therapeutic treatment regimen in a patient, comprising:

a) measuring at least one of EDG8 mRNA or EDG8 expression levels in a first sample obtained from the patient, thereby generating data for a pre-treatment level;

b) administering the treatment regimen to the patient;

c) measuring at least one of EDG8 mRNA or EDG8 expression levels in a second sample from the patient at a time following administration of the treatment regimen, thereby generating data for a test level; and

d) comparing the pre-treatment level to the test level, wherein data showing no decrease in the test level relative to the pre-treatment level indicates that the treatment regimen is not effective in the patient.

128. A method for selecting test molecules having a therapeutic effect in a patient, comprising:

a) measuring at least one of EDG8 mRNA or EDG8 expression levels in a first sample obtained from the patient, thereby generating data for a pre-treatment level;

b) administering the test molecule to the patient;

c) measuring at least one of EDG8 mRNA or EDG8 expression levels in a second sample from the patient at a time following administration of the test molecule, thereby generating data for a test level;

d) comparing the pre-treatment level to the test level, wherein data showing no decrease in the test level relative to the pre-treatment level indicates that the test molecule is not effective in the patient; and

e) eliminating the test molecule from further evaluation or study.

129. A method for treating cancer or precancerous growth in a mammalian tissue, comprising contacting the tissue with an antibody to S1P protein.

130. The method according to claim 129, wherein the tissue is a colon tissue, an ovarian tissue, a breast tissue, a lung tissue, a brain tissue, or a bladder tissue.

131. The method according to claim 129, wherein the antibody binds to S1P protein.

132. A method of treating cancer in a patient comprising administering the patient an effective amount of an anti-S1P antibody.

133. The method of claim 132, wherein the antibody is a blocking antibody to S1P.

134. The method of claim 132, wherein the cancer is a colon cancer, an ovarian cancer, a breast cancer, a lung cancer, a brain cancer, or a bladder cancer.